

DOCUMENT-IDENTIFIER: US 20030003756 A1

TITLE: METHOD FOR FORMING CONTACT BY USING ARF LITHOGRAPHY

----- KWIC -----

14. The method as recited in claim 1, wherein the low-k dielectric sacrifice layer of step f) is removed by a wet etching process using an etching agent comprising H.sub.2SO.sub.4, H.sub.2O.sub.2 and de-ionized water.

DOCUMENT-IDENTIFIER: US 20020168591 A1

TITLE: Method for reducing silicide spiking in a gate

----- KWIC -----

[0021] A first rapid thermal oxidation (RTO) process is used to form a second silicon oxide layer 37 that is formed of silicon dioxide, or oxygen-rich oxide, with a thickness of approximately 20-30 angstroms (.ANG.). The RTO process allows the oxygen atoms absorbed during the first RTO process to enter into the polysilicon layer 36, which means the polysilicon layer 36 absorbs some oxygen atoms during the first RTO process. The oxygen atoms absorbed by the polysilicon layer 36 don't exist in an oxide-form as the second silicon oxide layer 37. Additionally, in the second embodiment of the present invention, an ion implantation process, as previously mentioned implants the oxygen atoms into the polysilicon layer 36. Since the second silicon oxide layer 37 is not required for the present invention, a cleaning process is performed to remove the second silicon oxide layer 37. The temperature of the first RTO process is approximately 800-1200.degree. C., with a duration of approximately 20-40 seconds. The cleaning process is performed using a cleaning solution formed of H.sub.2O.sub.2 and NH.sub.4OH.

8. The method of claim 7 wherein the cleaning solution comprises H.sub.2O.sub.2 and NH.sub.4OH.

	Type	L #	Hits	Search Text	DBs	Time Stamp
1	IS&R	L1	1186	(430/331).CCLS.	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 14:29
2	IS&R	L2	154	(430/134).CCLS.	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 14:29
3	IS&R	L10	364	(438/626).CCLS.	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 14:32
4	IS&R	L13	549	(438/633).CCLS.	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 14:36
5	BRS	L15	5	13 and "H.sub.20.sub.2"	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 14:45

	Type	L #	Hits	Search Text	DBs	Time Stamp
6	IS&R	L16	443	(438/638).CCLS.	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 14:45
7	BRS	L17	2	16 and ("NH.sub.4OH")	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 14:55
8	IS&R	L18	347	(438/906).CCLS.	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 14:55
9	BRS	L19	3	18 and "NH.sub.4OH"	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 14:59
10	IS&R	L20	658	(438/710).CCLS.	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 14:59

	Type	L #	Hits	Search Text	DBs	Time Stamp
11	BRS	L21	0	20 and "NH.sub.4OH"	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:00
12	BRS	L22	1	20 and "H.sub.2O.sub.2"	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:01
13	BRS	L23	351	438/for.389.ccls.	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:01
14	BRS	L24	0	23 and "NH.sub.4OH"	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:01
15	BRS	L25	0	23 and "H.sub.2O.sub.2"	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:02

	Type	L #	Hits	Search Text	DBs	Time Stamp
16	BRS	L26	298	"NH.sub.4OH" and "H.sub.2O.sub.2"	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:04
17	BRS	L27	241	26 and ("H.sub.2O" or deionized or DI)	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:05
18	BRS	L28	2	27 and (low adj K adj dielectric)	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:15
19	BRS	L29	1	surfactant same fluorosurfactant same (hydrocarbon adj surfactants)	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:17
20	BRS	L30	1	surfactant same fluosurfactant	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:17

	Type	L #	Hits	Search Text	DBs	Time Stamp
21	BRS	L31	595	hydrocarbon adj surfactant	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:20
22	BRS	L32	901	"32" and "NH.sub.4OH"	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:20
23	BRS	L33	1	31 and "NH.sub.4OH"	USPAT; US-PGP UB; EPO; JPO; DERWEN T; IBM_TD B	2003/01/10 15:20